

read the white book 2.0 file system and load accordingly with PBC. Since all files are contained in same data area of disc, the playback device uses a somewhat of an ISO CD ROM method for file playback, hence the need for MPEG tracks.

CDRWIN use a DAO (disc at once) method for final authoring duties of this process. The final resulting disc is now ready for mass commercial replication without the chance of an uncorrectable E32 error. DVD players do not traditionally read CD-R disc due to the differences of disc makeup between manufactured pressed disc and CD-r disc.

## Claims

- 1) Consumer friendly format of the ISO 9660 white book 2.0 format. This special method allow an white book formatted disc to traditionally playback in an red book only CD player without interrupted play time of white book data track 1, limiting such to 4 seconds of audio play. Playback of this disc in DVD players allow Play Back Control operation of all files contained in white book data track 1 without the need to use a physical TOC track number above 1 to do so.
- 2) Error correction associated with original white book 2.0 specification when adding CD-DA tracks to the disc structure. PRE GAP sector error and untrue lead out point problems of current spec are corrected with a programming burn of mode 2 data over PRE GAP area originally inserted between white book data track and CD-DA tracks. A fake track 2 of 10 seconds is pre authored to disc to leave room for post authoring mode 2 scrambled data over this area. Being 10 seconds is spliced to a 1 wave file structure, the switch from mode 2 data to audio sectors is seamless leaving room for no gapping empty sector error. By post authoring with a cue sheet reliant ISO 9660 mastering program, a true audio compliant lead out point is established.
- 3) Commercial replication capability of white book 2.0 with CD-DA tracks. PRE GAP sector errors and untrue lead out point cause an E32 error when glass mastering replication disc. E32 error represents an uncorrectable error and disc replication become impossible by ISO 9660 licensed manufactures.
- 4) Ability to replace audio WAV file with a 5.1 digital surround sound DTS bitstream WAV file. With this special WAV file of CD standard 16 bit 44.1 kHz, it is possible to author a disc with MPEG 1 video content to play in DVD players with compact disc digital video logo, and from track 2 and above offer 5.1 DTS digital surround sound programming.
- 5) A new book standard to add to software one step authoring programs. With error correcting structure and true lead out point, software CD burning programs have a programming standard to follow an error free way to produce white book disc with CD-DA tracks without the three steps used by inventor with multiple programs.
- 6) Proper structuring of MPEG files contained within the data track 1 of the white book structure. With the formatting of play items in track 1 of disc, play back control (PBC) of current DVD players and VCD players will allow user to fast forward, skip files, and use menus as if they where actual TOC included tracks.
- 7) Encoding method of MPEG 1 file for white book 2.0 ISO 9660 portion of disc for authoring theft Protection of exposed MPG extended MPEG file for computer playback. With this file encoding of variable bit rate (VBR) rather than the traditional constant bit rate (CBR) make MPG file readable by a PC or MAC media player only. The white book 2.0 spec call for all MPEG files to be encoded in a CBR manner. VBR files are not compatible with most Video CD authoring programs, DAT files needed for white book Video CD creation cannot be produced. Playback of such file in machines with the compact disc digital video logo do not play VBR MPEG 1 data.